

## Gulfstream V - JSC 09/14/19

Aircraft: [Gulfstream V - JSC](#) ([See full schedule](#))

Flight Number: GV-46

Payload Configuration: OIB

Nav Data Collected: No

Total Flight Time: 7.2 hours

Submitted by: Debra Willett on 09/15/19

Flight Segments:

From:	BGTL	To:	BGTL
Start:	09/14/19 10:55 Z	Finish:	09/14/19 18:10 Z
Flight Time:	7.2 hours		
Log Number:	<a href="#">195004</a>	PI:	Joseph MacGregor
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Miles Flown:	3100 miles		

Flight Hour Summary:

	<b>195004</b>
Flight Hours Approved in SOFRS	120
Total Used	83.8
Total Remaining	36.2

### 195004 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">08/19/19</a>	GV-34	Science	3.8	3.8	116.2	1700
<a href="#">08/21/19</a>	GV-35	Transit	0.6	4.4	115.6	300
<a href="#">09/03/19</a>	GV-36	Transit	6.5	10.9	109.1	2800
<a href="#">09/04/19</a>	GV-37	Science	6.7	17.6	102.4	2900
<a href="#">09/05/19</a>	GV-38	Science	6.7	24.3	95.7	2900
<a href="#">09/06/19</a>	GV-39	Science	6.6	30.9	89.1	2900
<a href="#">09/07/19</a>	GV-40	Science	6.1	37	83	2700
<a href="#">09/09/19</a>	GV-41	Science	6.4	43.4	76.6	2800
<a href="#">09/10/19</a>	GV-42	Science	6.8	50.2	69.8	3000
<a href="#">09/11/19</a>	GV-43	Science	6.9	57.1	62.9	3000
<a href="#">09/12/19</a>	GV-44	Science	7.1	64.2	55.8	3100
<a href="#">09/13/19</a>	GV-45	Science	5.8	70	50	2500
<a href="#">09/14/19</a>	GV-46	Science	7.2	77.2	42.8	3100
<a href="#">09/15/19</a>	GV-47	Transit	6.6	83.8	36.2	2900

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

## OIB Summer 2019 - Gulfstream V - JSC 09/14/19 Science Report

Mission: OIB Summer 2019

Mission Summary:

[operational\_instruments]  
ATM

Narrow Swath ATM  
FLIR  
CAMBOT  
Snow Radar  
[/operational\_instruments]

*OUTLOOK FOR TOMORROW: Today was the last possible science mission for the Arctic summer 2019 campaign. Tomorrow the OIB team will transit from Thule Greenland to Houston Texas and begin de-installation of the instruments.*

**Mission: Helheim-Kangerdlugssuaq**  
**Priority: Medium**

Again, due to the G-V's range and speed, IceBridge was able to redesign a science mission that was originally only accessible from Kangerlussuaq to depart from Thule. Today's final science mission of the summer 2019 Arctic campaign was a medium priority land ice mission focused on multiple southeast glaciers. Specifically, this mission surveys Helhiem, Kangerdlugssuaq, Fenris and several branches of Midgard glaciers. For the mission today we removed all Midgard-area glacier centerlines to allow time for transit from Thule. This mission was last flown in 2018 and not in Spring 2019.

Weather forecasts this morning and satellite imagery again showed that the Arctic Ocean and sea ice missions were not an option due to low cold coverage. Another possible mission for today was Penny Ice Cap, however we would have to wait until 11am local to get satellite imagery for that region, and forecasts disagreed. If the imagery was not clear, then we would not be able to do any other missions today due to the delay. However, southeast Greenland had off shore winds, causing clear skies in the survey areas of our mission. This is exactly what we experienced along with some mild turbulence.

We saw a lot of melt conditions at Helhiem Glacier.

All instruments performed well today. We lost only ~70 nm of ATM laser data on the northern east-west crossing.

ICESat-2 RGT latencies (+/- indicates OIB surveyed after/before ICESat-2):  
None

Data volumes collected during today's mission, which consisted of 3.9 hours of data collection:

ATM: 60 Gb  
CAMBOT: 123 Gb  
FLIR: 8 Gb  
Narrow Swath ATM: 86 Gb green  
Narrow Swath ATM: 69 Gb IR  
VNIR: 31 Gb  
SWIR: 43 Gb  
Snow Radar: 0.81 Tb

#### Images:

**Figure 1**



[Read more](#)

**Figure 2**



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### Figure 3



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### Figure 4



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### Figure 5



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### Figure 6



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**Submitted by:** Linette Boisvert on 09/16/19

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

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